Increasing Fathers' Involvement in Child Care With a Couple-Focused Intervention During the Transition to Parenthood

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Abstract: In this article, we report the results of an evaluation study of a program for couples during the transition to parenthood on father involvement in child care. One-hundred-twenty couples were assigned to 1 of the 3 groups: a treatment group that received the *Welcome Baby* new-parent, home-visiting program focused on infant development and health, supplemented with the self-guided *Marriage Moments* program focused on strengthening couple relationships; a comparison group that received just the *Welcome Baby* program; or a control group. The study revealed that the treatment group fathers were more involved in child care than control group fathers, and this finding was replicated in a second evaluation study. Family life educators must be open to the possibility that they may miss a primary intervention target, yet hit a secondary one.

Key Words: family life education, father involvement, program evaluation, transition to parenthood.

In this article, we report the results of a study evaluating the effects of an intervention delivered during the transition to parenthood on father involvement. The intervention was designed primarily to strengthen couple relationship outcomes but failed to produce such effects. On the other hand, we did find a treatment effect on a secondary target outcome of father involvement in child care. That is, we missed our primary target but hit a secondary target. Before describing the study and our findings, we briefly review the literatures on father involvement and child well-being, coparenting, and evaluation research of interventions designed to increase father involvement, as well as couple-focused transition-to-parenthood programs.

Fathering and Child Well-Being

Father sensitivity to infant needs has been correlated with infant secure attachment (Notaro & Volling,

1999) and toddler ability to regulate negative feelings (Davidov & Grusec, 2006). Father sensitivity, warmth, and playful interaction further influence toddler and preschooler cognitive and language outcomes independent of the effect of mothering (Black, Dubowitz, & Starr, 1999; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). There is also evidence that the father-child relationship and the mother-child relationship provide unique relational settings for children's development (Ryan, Martin, & Brooks-Gunn, 2006; Stoltz, Barber, & Olsen, 2005).

School-aged children whose fathers are positively involved in their lives have greater self-control, better life skills, more social competence, and higher self-esteem scores (Amato, 1987). In adolescence, father presence and time spent with adolescent sons are significantly associated with sons' school achievement (Ramirez-Valles, Zimmerman, & Juarez, 2002) and adolescent perceptions of life satisfaction and

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happiness (Flouri & Buchanan, 2003). In sum, positive paternal involvement influences multiple domains of children's lives from birth through adolescence.

The Relationship Between Coparenting and Father Involvement

Recent research on family processes has discovered that coparenting processes (also known as parenting alliance) serve as a less-studied link between marriage and parenting practices. Coparenting refers to the quality of the coordination (i.e., undermining or encouraging) between partners in their parenting roles (Schoppe-Sullivan, Mangelsdorf, Brown, & Sokolowski, 2006). Some issues central to coparenting include the division of child care, future dreams for one's child, and parenting beliefs (Van Egeren & Hawkins, 2004).

Early research on the association between father involvement and marital quality highlighted the correlation between prior assessments of marital satisfaction and later reports of father participation in child care. McBride and Rane (1998) discovered, however, that items specific to the distinct coparenting relationship more strongly affect men's parenting practices than more global measures of marital quality. Though relationship processes such as problem solving, conflict management, and affection present in marriage before the birth of a baby do predict some aspects of parenting quality across the transition to parenthood, the mismatch between coparents' expectations about issues such as fairness in the division of childcare labor can lead to worse parenting practices and lower marital quality, particularly across the transition to parenthood (McHale et al., 2004). Undermining coparenting practices seem particularly harmful to fathers' perceptions of their parenting competence (Beitel & Parke, 1998; Van Egeren & Hawkins, 2004). A lack of maternal support decreases men's involvement in childrearing matters by subverting men's beliefs about their ability to parent well. Mothers' perceptions of themselves as parents and as coparents seem to be less rooted in fathers' attitudes about mothering.

Although family systems theory postulates that times of family transition imply instability and disequilibrium, allowing for more complex integration and differentiation into the family system, theorists also recognize that family interactions swiftly stabilize to promote family equilibrium (Minuchin, 1985). This suggests that coparenting interventions

prior to and immediately following the birth of a new baby will be a critical time for family life educators to help partners cocreate positive shared parenting patterns. Fivaz-Depeursinge and Corboz-Warnery (1999) demonstrate that couples begin to solidify their newly established coparenting behaviors within the first 3 – 4 months after the birth of a first child.

Father Involvement and Couple-Focused Transition to Parenthood Interventions

Given the developmental asset that effective coparenting and positive paternal involvement can be for children, family life educators have been interested in interventions to support and increase father involvement. Most parenting interventions are delivered to mothers, and many of the father interventions that exist have not been evaluated with outcome assessments (Fagan & Iglesias, 1999; Hawkins & Fagan, 2001). However, the research that exists does show that interventions can modestly increase father involvement among middle-class men (Hawkins, Roberts, Christiansen, & Marshall, 1994; Levant & Doyle, 1983; McBride, 1990). Moreover, there is emerging evidence that father involvement interventions can be effective with more at-risk populations (Cowan, Cowan, Pruett, & Pruett, 2007; Fagan & Iglesias). In addition to increasing fathers' involvement with their children, research has also found that interventions can positively affect other outcomes relevant to father involvement, including fathers' attitudes toward their roles (Fagan & Stevenson, 2002; McBride) and quality of father-child interaction (Bryan, 2000; Doherty, Erickson, & LaRossa, 2006; Feinberg & Kan, 2007; Levant & Doyle; Magill-Evans, Harrison, Benzies, Gierl, & Kimak, 2007).

The transition to parenthood may be an effective time for father involvement interventions. A handful of evaluation studies of programs delivered during the transition to parenthood have documented gains in various aspects of father involvement and positive parenting (Bryan, 2000; Doherty et al., 2006; Feinberg & Kan, 2007). Most programs delivered during the transition to parenthood, however, focus more on strengthening the couple relationship, which is at risk during this time of change (Cowan & Cowan, 2000), than on parenting issues. The transition to parenthood may be an ideal time for marriage and relationship education (Cowan & Cowan,

1995). Evaluation studies of these programs generally have shown positive results on relationship quality and couple functioning (Cowan & Cowan, 2000; Schulz, Cowan, & Cowan, 2006; Shapiro & Gottman, 2005). Not all transition-to-parenthood programs have demonstrated success, however. Hawkins, Fawcett, Carroll, and Gilliland (2006) tested a mostly self-guided program delivered to couples in childbirth education classes and in a community-based, new-parent, home-visiting program (Lovejoy, 2004) but found no significant treatment effects on couple relationships.

Nevertheless, consistent with basic principles of family systems theory (Minuchin, 1985), couplefocused programs that target relationship quality also may positively impact parenting behavior. Indeed, research has established a clear connection between marital quality and positive parenting, especially for men (Cummings & O'Reilly, 1997; Krishnakumar & Buehler, 2000; Schoppe-Sullivan et al., 2006). Despite this, few studies have explored how interventions targeting primarily the couple relationship may directly impact father involvement. This study examines that direct possibility. In this paper, we describe our study to evaluate the Marriage Moments program, focusing on father involvement outcomes rather than couple relationship outcomes, which are reported elsewhere (Hawkins et al., 2006).

Method

Welcome Baby/Marriage Moment Intervention

Marriage Moments is a mostly self-guided marital enhancement program developed to help couples improve their relationship during the transition to parenthood. The program was developed by family life educators at Brigham Young University (Hawkins et al., 2006). The immediate target for the intervention were young, middle-class or aspiring middleclass, married couples with at least a high school education, as this was the most common demographic profile of transitioning couples in the geographical area of the intervention. The program was disseminated to first-time parents through the ongoing Welcome Baby program, a new-parent, home-visitation program run through a local United Way chapter and a county health department. A trained home visitor visited with new parents at monthly

home visits during the first 6 – 12 months of an infant's life to help increase parental awareness of infant development, health and safety concerns, and community resources for parents. The same set of home visitors administered the normal *Welcome Baby* program as well as the *Welcome Baby* + *Marriage Moments* program. Program contamination was likely minimal because the normal *Welcome Baby* program did not contain content directly related to marital functioning, and information about father involvement with children was limited to general content about the value of good parental care for infants.

During their 3-month (postnatal) visit, when both fathers and mothers were required to be present, the home visitor introduced the couple to the Marriage Moments program by asking the couple about changes in their relationship since the arrival of their baby and discrepancies between their initial expectations and the actual experiences of parenthood. The visitor then presented the couple with the Marriage Moments video and guidebook and explained that the program is composed of lessons that emphasize qualities that lay the foundation of a lasting, loving marriage (Fowers, 2000). The visitor encouraged the couple to view the video, read the lessons, and work on the activities included in the guidebook during the next month. Couples worked through the program at their own pace during the month following the 3-month visit. At the 4-month visit, the home visitor checked up briefly on the couple's participation and reactions, but no formal intervention occurred. We waited until the 3-month visit to begin the intervention to allow time for a postbirth infant care routine to develop. Previous experience with the Welcome Baby program alerted us to the fact that many couples ended their voluntary participation in this homevisitation program by 6 months. Thus, we decided to concentrate the intervention into the period between the 3- and 4-month visits rather than spread out the intervention over several months. This helped to hold down program attrition.

The primary goal of the program was to prevent couple relationship deterioration during the transition to parenthood and thus support more effective parenting for infant well-being. Formative evaluation data were self-reported during the immediate postintervention assessment (Time 2). An analysis of open-ended questions indicated that participants had a positive experience with the program. A quantitative program participation score was computed

on the basis of self-reports of video segments viewed, lesson material read, and guidebook activities completed (which received the heaviest weight in the participation calculations). The mean participation score was 5.5 (SD = 1.96) for the treatment group participants, with no difference by spouse gender, t(73) = .09, ns; nearly 90% of scores fell between 4 and 8 on a scale of 0 - 10. A participation score of 5 - 6 indicates that a participant read about four of the five workbook chapters (and/or viewed the corresponding videos) and completed most but not all of the activities corresponding to those chapters in the workbook. Thus, this score indicates substantial but not complete participation in the program. Some guidebook activities were completed individually, whereas others were done together. Unfortunately, we did not have specific information about individuals' participation in the fairness module of the intervention, which directly relates to the intervention focus of this report. However, the higher the participation score, the more likely participants were to have read material and completed exercises related to the fairness module.

Although our primary target for the intervention was the couple relationship, one lesson in the curriculum focused on the marital virtue of justice or fairness (Fowers, 2000) and discussed the value of shared involvement in childcare and household work. Thus, the program could have a secondary effect on father involvement. Two activities in this lesson were designed to help couples increase their dependability and commitment to fairness in the relationship at this time of significant change. Couples also went through an activity to speculate on how fairness issues will change over the next 6 months, including taking the other spouse's perspective on what changes will unfold. The couples then considered different options to create and sustain fairness. The program also encouraged the couple to identify a few childcare and household tasks that they could do together rather than separately to promote togetherness. Finally, the program acknowledged that fairness issues evolve and fluctuate across time so couples will need to be flexible and revisit fairness issues regularly. To make adjustments easier, couples were encouraged to choose a "code word" or some kind of signal that will initiate a "fairness discussion." (This lesson, "More Than Equality," and all other lessons in the program are available online; to see more details, go to www. marriagemoments.org.)

Procedures and Sample

To evaluate the impact of this program on participants, we obtained the names of married couples expecting their first child or who had given birth to their first child within 1 month of contact from hospital intake records at several local hospitals in a western metropolitan area. We asked if they would be interested in being contacted by phone to learn more about the new-parent, home-visiting program, Welcome Baby. In addition, we set up recruitment booths at a local university seeking interested participants and placed invitations in childbirth education classes at local hospitals. Couples who enrolled in the Welcome Baby program were told at their 2-month (postnatal) visit about a study of couples during the transition to parenthood and asked if they would be interested in participating in that study. Of those couples participating in Welcome Baby who were interested in participating in this study, 40 couples were randomly assigned to a treatment group that involved receiving the Marriage Moments workbook and video in addition to the Welcome Baby program curriculum. Similarly, 40 couples were randomly assigned to a comparison group that only received the standard Welcome Baby curriculum focused on infant care and health. In addition, couples who declined a Welcome Baby home visitor when first contacted by the research team were asked if they would be interested in participating in a study of couples during the transition to parenthood. The first 40 couples who were not interested in the home visitor but interested in the study were enrolled as a control group that did not receive the Welcome Baby or Marriage Moments programs. All participants were told about the nature, requirements, and incentives of the study, and signed informed consent documents.

Preassessment questionnaires were sent via mail to couples in each group and completed when the infant turned approximately 3 months old (Time 1). An immediate postprogram assessment questionnaire was completed at roughly 4 – 5 months postpartum (Time 2) and a follow-up assessment occurred at roughly 9 – 10 months postpartum (Time 3). Instructions for completing and returning the assessments to the home visitor (for treatment and comparison couples) or via mail (for control couples) were included in each set of mailed surveys. Attrition over the course of the study was less than 5%. One family withdrew because of the tragic

death of the husband; four families failed to return follow-up assessments. Final group totals were 39 couples for the *Marriage Moments* treatment group, 37 couples for the *Welcome Baby* comparison group, and 39 couples for the control group (total N = 115.)

The couples in the treatment group received a Marriage Moments guidebook and video at the 3month home visit and were asked to watch the video and participate in the workbook activities during the following month. Home visitors were trained by the research team in the protocol for collecting assessment instruments at their 3- and 4-month visits. Couples in the control group returned surveys by mail in a self-addressed, stamped envelope at 3- and 4- months postnatal. The 9-month follow-up assessment was collected via mail for all couples in the study. By that time, couples were familiar with the survey, and many of the couples in the treatment and comparison groups ended their Welcome Baby home visits before 9-months postnatal. After completing assessments at the end of the study, the couples in the comparison and control groups were offered a Marriage Moments guidebook.

The average age for husbands was 26 with a range from 20 to 38, whereas the average age for wives was 24 with a range from 18 to 32. Reflecting the local community, there was little ethnic diversity in the sample (94% White, 4% Hispanic, and 1% Pacific Islander). Approximately half (48%) of the sample graduated from college, whereas only a small proportion (3%) indicated having received a professional degree or that they had not received a high school diploma (2%). Of those participants working at Time 1, men averaged a workweek of 35 hr and women averaged a workweek of 20 hr.

Group equivalence comparisons. Although treatment group and comparison group participants were randomly assigned, these couples first had to indicate their desire to participate in the new-parent, home-visiting program. Moreover, there was self-selection in the control group, as they were asked to participate in the study only when they indicated they were not interested in receiving a Welcome Baby home visitor. Given the quasi-experimental nature of this study, it was important to establish that groups were equivalent at the beginning of the study. There were no significant demographic differences among groups (analyses are not tabled here but available upon request from the first author). Groups did not differ on the Time 1 measure of

father involvement in daily childcare activities, F(2,116) = .93, ns. Moreover, no statistically significant differences were found among groups for men on any couple relationship outcome measures at Time 1. Modest but significant differences were found between groups for wives at Time 1 on a measure of expectations about their adjustment to the transition to parenthood, F(2, 115) = 3.91, p < .05, and wives' report of their husbands' marital virtues, F(2, 109) = 2.92, p < .05, with the control group means significantly higher than the other group means. With these two exceptions, however, groups were similar at Time 1 despite a lack of true randomization across groups. The adjustment to parenthood measure asked about challenges related to balancing work and family, time with spouse, time for personal leisure, and sexual intimacy. The marital virtues measure asked about such constructs as generosity, forgiveness, admiration, appreciation, and teamwork. Because of the small attrition rate of the study (five couples), no attrition analyses were conducted.

Measures

The assessment booklets included measures used to help investigate the impact of the Marriage Moments program on the couple relationship during the transition to parenthood. Although initially our primary intervention interest was on the couple relationship, we did include a measure of father involvement and thus were able to explore a possible treatment effect on this variable. We derived the measure from an instrument employed by Cabrera et al. (2004) that has been used with multiple family types and varying ages of children. This measure included items that assessed fathers' involvement in daily child care, as well as child interaction and play. We asked husbands to report on father involvement at each wave of measurement, but we did not ask for wives' reports of father involvement until the final measurement wave. Thus, our psychometric analyses of this instrument were based on the Time 3 (9month) assessment when both wives and husbands reported on this construct. Our primary interest in terms of the intervention was the Time 3 measure that would indicate whether any change in involvement as a result of the intervention was sustained over time; so, the Time 3 assessment was central to our research question. Factor analyses of the Time 3 measure yielded two distinct factors with six items

assessing involvement in daily childcare tasks (i.e., changing diapers, preparing meals or bottles, feeding child, putting child to sleep, getting up with child at night, dressing child) and five items assessing involvement in playful interactions (i.e., playing peek-a-boo, tickling child, singing songs, taking child on walk, reading to child). This structure emerged for both wives' and husbands' reports. The items in these scales corresponded closely to the caregiving and playful interaction subscales in the Cabrera et al. measure. Cronbach's alpha was .85 for wives' reports of fathers' child care and .74 for husbands' reports of their own involvement. For the playful interactions scale, Cronbach's alphas were somewhat weaker, .68 for wives' reports of fathers' involvement and .62 for husbands' reports. Wives' and husbands' reports were moderately correlated (child care r = .634, p < .001; playful interaction r = .509, p < .001).

Results

As mentioned previously, initially our primary intervention interest was in strengthening couple relationships during the transition to parenthood. However, a set of analyses could find no evidence of differential program effects of the *Marriage Moments* program on a set of relationship outcomes (Hawkins et al., 2006). In this study, however, we focused on potential secondary program effects on father involvement resulting theoretically from the

program's lesson on fairness and sharing domestic labor. In a series of analyses, we explored the potential intervention effects of the *Welcome Baby/Marriage Moments* (WB + MM) program on reports of father involvement in daily childcare tasks and playful interaction at 9 months postpartum.

Daily child care. First, we conducted a multivariate analysis of covariance (MANCOVA) with wives' and husbands' reports of father involvement in daily childcare tasks at 9 months, with group (treatment WB + MM, comparison WB only, and control) as a between-subjects factor. Descriptive data for these analyses are presented in Table 1, Panel A. We also included husbands' reports of child care at the preassessment as a covariate in the model because our quasi-experimental design left open the possibility that initial group differences could impact postassessment group differences. Wives did not report on fathers' child care at the preassessment. This analysis showed no group differences across both wives' and husbands' reports, Wilks' λ F(4, 220) = .93, ns. Similarly, the univariate tests failed to detect a difference across the three intervention-design groups, wives' reports of fathers' daily child care: F(2, 11) =1.70, ns; husbands' reports: F(2, 111) = 1.01, ns. However, we were interested specifically in the contrast between the WB + MM treatment group, which received the supplemental father involvement intervention, and the no-treatment control group. The comparison WB-only group did not receive an intervention directly targeting father involvement in child care. Thus, no intervention effect was

Table 1. Means, Standard Deviations, and Ns for Husbands' and Wives' Reports on Measures of Father Involvement (9 Months Postpartum) in the New-Parent, Home-Visiting Study (Panel A) and the Prenatal Childbirth Class Study (Panel B)

	Fat	Father Involvement in Daily Child Care						Father Involvement in Playful Interaction					
	W	Wives' Reports			Husbands' Reports			Wives' Reports			Husbands' Reports		
Study/Group	N	M	SD	N	M	SD	N	М	SD	N	M	SD	
Panel A: Welcome Baby new-parent, home-visiting study													
WB + MM treatment	40	4.13	0.875	40	4.03	1.012	35	4.32	0.887	35	4.67	0.623	
WB-only treatment	36	4.00	0.963	36	3.88	1.112	33	3.98	1.055	33	4.56	0.629	
Control	39	3.73	0.804	39	3.68	0.824	34	4.26	0.799	34	4.29	0.762	
Panel B: Marriage Moments prenatal childbirth class study													
Instructor-encouraged treatment	39	3.94	1.035	37	4.09	0.886	39	4.32	1.083	37	4.47	0.874	
Self-guided treatment	40	3.71	0.860	42	4.11	0.866	40	4.25	0.925	42	4.54	0.902	
Control	37	3.47	0.972	36	4.21	0.590	38	4.32	0.960	37	4.79	0.750	

hypothesized for this group. This linear contrast approached significance for wives' reports of fathers' involvement in daily child care (p = .068; effect size = .48) but was not significant for husbands' reports of their own child care (p = .16). This suggests that, according to wives' reports, treatment group fathers were more involved in child care than control group fathers at 9 months postpartum. The WB + MM treatment group means were higher than the WB-only comparison group means, but these differences were not significant. And the WB-only comparison group means were not significantly different from the control group means, suggesting that the Marriage Moments supplemental relationship enrichment curriculum rather than merely the Welcome Baby infant care curriculum was responsible for the intervention effect.

Playful interaction. The intervention encouraged fathers' involvement in daily childcare activities as a way to maintain marital quality. A spillover intervention effect on fathers' playful interaction with children was possible, however, and would provide an indication of whether the intervention produced specific or more general effects on father involvement. Thus, next we conducted a similar MANCOVA with wives' and husbands' reports of fathers' playful interaction at 9 months, with intervention group as a between-subjects factor. Again, we included husbands' reports of playful interaction at the preassessment as a covariate in the model. (Wives did not report on fathers' playful interaction at the preassessment.) The effect across both wives' and husbands' reports approached significance, Wilks' $\lambda F(4, 194) = 2.13, p = .08$. The univariate tests, however, failed to detect a difference across the three intervention-design groups, wives' reports of fathers' playful interaction: F(2, 98) = 1.69, ns; husbands' reports: F(2, 98) = 1.06, ns. Again, however, we were interested specifically in the contrast between the WB + MM treatment group, which received the supplemental father involvement intervention, and the control group. This contrast was not significant for wives' reports of fathers' playful interaction (p = .65) or for husbands' reports (p =.17). Other group contrasts did not yield significant differences.

In summary, wives (but not husbands) in the WB + MM treatment group reported that their husbands were moderately more involved in daily childcare tasks compared to control group husbands. But wives and husbands in the WB + MM

treatment group did not report greater playful interaction from fathers compared to those in the control group. Thus, we conclude the intervention curriculum related to encouraging fathers' involvement in daily child care produced a specific effect on fathers' childcare tasks rather than a general effect on playful interaction.

However, we were sensitive to the fact that father involvement was a secondary intervention target. Moreover, the intervention effect on fathers' daily child care did not quite reach the conventional level of statistical significance (p=.068). In this situation, we thought it prudent to seek to replicate this pattern of findings in a separate data set. Fortunately, we conducted a similar study at about the same time to evaluate the *Marriage Moments* program disseminated in a different way and time—through prenatal childbirth education classes rather than postnatal home visits—but with a different sample from the same geographical area. Next, we briefly report the results of a set of similar analyses from a second, related intervention study.

Second Study Methods and Results

In a separate study, we recruited 155 couples in prenatal childbirth education classes in three local hospitals in a western metropolitan area. Couples who agreed to participate in the study of couples during the transition to parenthood were randomly assigned to three groups. Fifty-one couples were assigned to an instructor-encouraged treatment (IE-T) group. This group viewed a brief Marriage Moments video segment each week as part of their 5-week prenatal class instruction. In addition, these couples were given Marriage Moments workbooks and encouraged by their childbirth instructors to do specific readings and activities at home each week. A second treatment group comprised 56 couples who did not receive this kind of encouragement to participate in the Marriage Moments curriculum from their childbirth instructors but did receive the curriculum materials from the researchers. We labeled this group the "self-guided" treatment (SG-T) group. Forty-eight couples were assigned to the control group and did not receive any Marriage Moments materials and no mention of Marriage Moments was made in their childbirth classes. Couples were assessed at about 3 - 5 months prenatal, about 6 weeks later (after the treatment groups had completed the childbirth class), about 3 months

postnatal, and finally at about 9 months postnatal. About 25% attrition, mostly between 3 and 9 months postnatal, reduced the sample size to 118 couples at the end of the study. Attrition analyses revealed no noteworthy bias introduced into the study as a result of attrition. Greater details of this study are available in Hawkins et al. (2006). We collected nearly identical measures to the first (*Welcome Baby*) study. The program participation level in this study reported by participants was slightly higher (M = 6.5, SD = 2.38) than in the first study (M = 5.5, SD = 1.96), perhaps because of financial incentives for greater program participation in the second study.

Similar to the first study of the Marriage Moments program embedded in the new-parent, home-visiting program, the prenatal childbirth class version of the program produced no observable treatment effects on a series of couple relationship variables (Hawkins et al., 2006). Nevertheless, we explored the data set further for a potential intervention effect of the program delivered to prenatal couples on reports of father involvement. The father involvement measure used in the first study was available in the second study only at the last measurement wave (9 months postpartum). It produced a two-factor structure identical to the first study. To attempt to replicate the first study's pattern of father involvement outcome findings, we conducted a multivariate analysis of variance (MANOVA) with wives' and husbands' reports of father involvement in daily childcare tasks, and with group (IE-T, SG-T, and Control) as a between-subjects factor. Descriptive data for these analyses are presented in Table 1, Panel B. No preassessment measure of fathers' involvement in child care was available to use a covariate in this model. This analysis showed no specific group differences across both wives' and husbands' reports, Wilks' λ F(4, 216) = 1.90, ns. Similarly, the univariate tests failed to detect a difference across all three groups, wives' reports of fathers' daily child care: F(2, 109) = 1.40, p = .25; husbands' reports: F(2, 109) = .33, ns. However, we were interested specifically in the contrast between the two treatment groups, which received the intervention materials related to fairness and sharing domestic labor and child care, and the control group. The linear contrast between the IE-T group and the control group approached significance for wives' reports of fathers' involvement in daily child care, similar to the first study (p = .09; effect size = .38), but it was

not significant for fathers' reports of their own involvement in child care. The contrast between the SG-T group and the control group, however, was not significant for wives' or husbands' reports of fathers' child care, although it was in the expected direction. (Meta-analytic researchers have noticed that group interaction may help to produce stronger intervention effects, which might explain the weaker effect for this SG-T group; see Tobler & Stratton, 1997.) Other group contrasts did not yield significant differences. The pattern of findings for a treatment group effect on wives' reports of fathers' daily child care in this second study generally reinforces the findings in the first study, providing greater confidence in those results.

Next, we explored intervention effects on fathers' playful interactions. We conducted a similar MANOVA with wives' and husbands' reports of fathers' playful interaction, with intervention group a between-subjects factor. This analysis showed no specific group differences across both wives' and husbands' reports, Wilks' λ F(4, 220) = 1.12, ns. Similarly, the univariate tests failed to detect a difference across all three groups, wives' reports of fathers' playful interaction: F(2, 111) = .13, ns; husbands' reports: F(2, 111) = 1.52, ns. Again, however, we were interested specifically in the contrast between the two treatment groups and the control group. These linear contrasts were not significant for husbands' reports of their own playful interaction in either the IE-T group (p = .10; control group fathers actually reported slightly higher levels of involvement) or the SG-T group (p =.29). Similarly, these contrasts were not significant for wives' reports of fathers' playful interaction in either the IE-treatment group (p = .98) or the SG-treatment group (p = .65). Other contrasts did not yield significant differences. Thus, similar to the first study, we found no significant intervention effect for fathers' playful interaction. Again, we conclude that the intervention produced a specific effect on fathers' childcare tasks rather than a general effect on playful interaction.

Discussion

We found evidence that the *Marriage Moments* program, which focuses primarily on strengthening couple relationships during the transition to parenthood, increased father involvement in daily child

care without affecting couple relationships. That is, although we missed our primary target "A"stronger couple relationships—we hit "B"—more effective coparenting, or more specifically, father involvement in daily child care. Although this outcome was not anticipated per se, family systems theorists would hardly be surprised at this finding because of their attention to the interrelatedness of parenting and marital subsystems (Minuchin, 1985). Although only one lesson in the Marriage Moments intervention focused on the issue of fairness, emphasizing sharing of increased domestic labor during the transition to parenthood, the lesson appears to have had a modest but reliable effect on fathers' involvement in daily child care. The lesson material did not insist on the need for a strictly equal division of labor, but it did stress trust and appreciation for a partner's efforts to achieve balance in the relationship. This instruction further stressed the value of fathers' involvement in child care, husbands' willingness to adjust to their wives' increased burdens once the new baby arrived, self-monitoring of domestic labor, and ongoing "check-ins" to negotiate change and better support of each other. Marriage Moments fathers may have been more sensitive to these issues as a result of the fairness curriculum and may have looked for more ways to achieve the virtue of fairness in their relationships through greater participation in daily caregiving tasks.

Intervention is as much a craft as it is a science. When we seek change in a family system through psychoeducational means, our efforts may be carefully constructed and even cautiously contoured to produce a specific change. But human and family systems are complex, and changing them is even more puzzling. Marital and parental subsystems are intricately intertwined; they are changing over time and embedded in social ecologies that will influence how intervention efforts will play out. Our study is a reminder to family life educators that we may be able to stimulate change in a family system but we hardly control the precision or magnitude of that change. We must be open to the possibility not only that we may not achieve our primary change goal but also that we may miss our primary target and hit another one. Although we design interventions to accomplish primary purposes, we must be sensitive to the reality that secondary and even unanticipated outcomes are likely (Kaftarian, Schinke, Greenberg, Caldwell, & Ellickson, 2007). All this suggests the prudent strategy of evaluating a wider range of potential outcomes than just the primary target of intervention, a strategy also supported by family systems theory. Although this places a greater burden on participants, a narrow scope of measured outcomes may diminish researchers' ability to see how they are actually changing family systems.

The preceding point regarding secondary targets of intervention is the primary contribution that this study makes to the field, we believe. However, there are a handful of points to be made that may aid in interpreting some of the specific findings of this study. We conclude by addressing these study-specific points.

First, we acknowledge that our findings should not be generalized beyond its primary target of young, middle-class or aspiring middle class, generally well-educated, married couples. This may be particularly true in this case because the intervention was self-guided rather than closely directed by a trained family life educator in a group setting. Perhaps self-guided intervention requires a higher level of literacy and educational experience to be effective. This hypothesis should be tested.

Second, our finding related to an increase in fathers' involvement in daily child care but not in playful interaction requires some thought. Why the effect for child care but not playful interaction? First, the intervention itself emphasized sharing the increased load of daily childcare tasks rather than fathers playing with their children. So the intervention appears to produce a specific rather than general effect on father involvement. Moreover, physical play is a well-established aspect of the contemporary fatherhood cultural script (Parke, 2002). Time-use data support the general finding that fathers spend a significantly greater proportion of their time with infants in physical play compared to mothers (Huston & Holmes, 2004). Because playing with children is more normative for fathers, the intervention encouraging father involvement does not contrast with the contemporary cultural script for fatherhood. But without the intervention, fathers may not have thought as deeply about the importance of their involvement in day-to-day infant caregiving, which is still less integrated into the cultural fathering script. Of course, we also note that our measure of playful interaction was not as reliable as the measure of daily child care, and this diminished our ability to detect an intervention effect.

Note also that this father involvement effect was not found in the treatment group that participated only in the *Welcome Baby* new-parent education program that focused on infant development, health, and proper care. Fathers may have seen this curriculum as directed more to their wives. But the WB + MM fathers received a specific lesson on fairness and the value of fathers' involvement in domestic labor. A specific "call to action" may be more effective in prompting greater father involvement than general education about infants and parenting.

We note also that the effect size (.48) associated with this intervention created nearly a half-standard-deviation difference in the distribution of scores on fathers' child care between treatment and control groups. On our scale, this change translates into doing a task a few times a week compared to a few to several times a month, and produced an effect that is larger than some other father involvement programs (e.g., Doherty et al., 2006; McBride, 1990).

The significant effect for father involvement in child care was found in mothers' reports of father involvement rather than fathers' own reports. One possible explanation for this finding may be that mothers were more attuned to their husbands' efforts to participate in regular caregiving as a result of the intervention, and any efforts in that direction were more likely to be noticed and appreciated. Also, mothers may be more attuned to fathers' child care because it directly relieves their burdens. Another possible explanation may be that mothers are simply keener observers of father involvement than are fathers themselves and thus are better able to register even modest increments in fathers' daily caregiving.

Because the father involvement outcome was a secondary target of our intervention rather than a primary one, we sought to replicate the findings with a similar intervention but a different sample. The second study was able to confirm the general direction of effect for mothers' reports of fathers' involvement in daily child care, although the magnitude was slightly weaker. The weaker results, however, may be explained by the more distal nature of the intervention in the second study. In that study, couples participated in the Marriage Moments program about 3 months before the birth of their child when the issue of father involvement was only a future consideration. In contrast, couples in the first study participated in the intervention at 3 months after the child's birth, when the issue of father involvement was a daily reality. Thus, the first study provided a more proximal intervention, which could account for the stronger intervention effect we

found in the first study. This observation also suggests that interventions to increase father involvement may be contingent on timing. In the postnatal home-visitation study, we intervened when child care was a daily reality for fathers but before patterns of involvement were solidified; fathers could implement change rather than merely contemplate it.

Finally, we note that interventions to improve couple relationships might produce an indirect effect on father involvement because relationship quality moderates involvement (Cummings & O'Reilly, 1997; Schoppe-Sullivan et al., 2006). Other couplefocused interventions during the transition to parenthood have shown success that we did not find at strengthening couple relationships (Cowan & Cowan, 2000; Shapiro & Gottman, 2005). But in the case of our study, an indirect effect was not possible because we observed no intervention effect of the Marriage Moments program on couple relationship outcomes. Still, we observed a direct effect due most likely to intervention curriculum and activities focused on the importance of fairness in marriage and the value of sharing domestic labor. Had our intervention been more successful at improving the quality of couple relationships, an indirect effect may have strengthened the overall impact of the intervention on father involvement. Indeed, one study suggests that programs that successfully target both increased father involvement and improved couple relationships produce a larger effect on father involvement than just targeting father involvement alone (Cowan et al., 2007). Family life educators should consider targeting both outcomes to maximize the impact of their intervention on father involvement.

References

Amato, P. R. (1987). Family processes in intact, one-parent, and step-parent families: The child's point of view. *Journal of Marriage and the Family*, 49, 327–337.

Beitel, A. H., & Parke, R. D. (1998). Paternal involvement in infancy: The role of maternal and paternal attitudes. *Journal of Family Psychology*, 12, 268–288.

Black, M. M., Dubowitz, H., & Starr, R. H. (1999). African American fathers in low-income urban families: Development, behavior, and home environment of their three-year-old children. *Child Development*, 70, 967–978.

Bryan, A. B. (2000). Enhancing parent-child interaction with a prenatal couple intervention. American Journal of Maternal/Child Nursing, 25, 139–145.

Cabrera, N. J., Ryan, R. M., Shannon, J. D., Brooks-Gunn, J., Vogel, C., Raikes, H., & Cohen, R. (2004). Low-income fathers' involvement in

- their toddlers' lives: Biological fathers from the Early Head Start Research and evaluation study. *Fathering*, 2, 5–30.
- Cowan, C. P., & Cowan, P. A. (1995). Intervention to ease the transition to parenthood: Why they are needed and what they can do. Family Relations, 44, 412–423.
- Cowan, C. P., & Cowan, P. A. (2000). When partners become parents: The big life change for couples. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cowan, C. P., Cowan, P. A., Pruett, M. K., & Pruett, K. (2007). An approach to preventing co-parenting conflict and divorce in low-income families: Strengthening couples relationships and fostering fathers' involvement. *Family Process*, 46, 109–121.
- Cummings, E. M., & O'Reilly, A. W. (1997). Fathers in family context: Effects of marital quality on child adjustment. In M. E. Lamb (Ed.), The role of the father in child development (3rd ed., pp. 49–65). New York: Wiley.
- Davidov, M., & Grusec, J. E. (2006). Untangling the links of parental responsiveness to distress and warmth to child outcomes. *Child Devel-opment*, 77, 44–58.
- Doherty, W. J., Erickson, M. F., & LaRossa, R. (2006). An intervention to increase father involvement and skills with infants during the transition to parenthood. *Journal of Family Psychology*, 20, 438–447.
- Fagan, J., & Iglesias, A. (1999). Father involvement program effects on fathers, father figures, and their head start children: A quasi-experimental study. Early Childhood Research Quarterly, 14, 243–269.
- Fagan, J., & Stevenson, H. C. (2002). An experimental study of an empowerment-based intervention for African American head start fathers. Family Relations, 51, 191–198.
- Feinberg, M. E., & Kan, M. L. (2007). Establishing family foundations at the transition to parenthood: Effects of a universal preventive intervention on co-parenting, parent mental health, parent-child stress, and infant regulatory capacity. Unpublished manuscript, Pennsylvania State University.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). The primary triangle: A developmental systems view of fathers, mothers and infants. New York: Basic Books.
- Flouri, E., & Buchanan, A. (2003). The role of father involvement and mother involvement in adolescents' psychological well-being. *British Journal of Social Work*, 33, 399–406.
- Fowers, B. J. (2000). Beyond the myth of marital happiness. San Francisco: Jossey-Bass.
- Hawkins, A. J., & Fagan, J. (2001). Clinical and educational interventions with fathers: A synthesis. In J. Fagan & A. J. Hawkins (Eds.), Clinical and educational interventions with fathers (pp. 285–293). New York: Haworth.
- Hawkins, A. J., Fawcett, E. B., Carroll, J. S., & Gilliland, T. T. (2006). The Marriage Moments program for couples transitioning to parenthood: Divergent conclusions from formative and outcome evaluation data. *Journal of Family Psychology*, 20, 561–570.
- Hawkins, A. J., Roberts, T., Christiansen, S. L., & Marshall, C. M. (1994).
 An evaluation of a program to help dual-earner couples share the second shift. *Family Relations*, 43, 213–220.
- Huston, T. L., & Holmes, E. K. (2004). Becoming parents. In A. L. Vangelisti (Ed.), *Handbook of family communication* (pp. 105–134). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kaftarian, S., Schinke, S., Greenberg, M., Caldwell, L., & Ellickson, P. (2007, May 31). Capturing, measuring and learning from unintended positive outcomes if efficacy, effectiveness and services trials. Paper symposium presented at the Society for Prevention Research Annual Conference, Washington, DC.
- Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations*, 49, 25–44.

- Levant, R. F., & Doyle, G. F. (1983). An evaluation of a parent education program for fathers of school-aged children. Family Relations, 32, 29–37.
- Lovejoy, K. (2004). Marriage Moments: An evaluation of an approach to strengthen couples' relationships during the transition to parenthood in the context of a home visitation program. Unpublished master's thesis. Brigham Young University, Provo, UT.
- Magill-Evans, J., Harrison, M. J., Benzies, K., Gierl, M., & Kimak, C. (2007). Effects of parenting education on first-time fathers' skills in interactions with their infants. *Fathering*, 5, 42–57.
- McBride, B. (1990). The effects of a parent education/play group program on father involvement in child rearing. *Family Relations*, 39, 250–258.
- McBride, B. A., & Rane, T. R. (1998). Parenting alliance as a predictor of father involvement: An exploratory study. Family Relations, 47, 229– 236
- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberson, R. (2004). The transition to co-parenthood: Parents' pre-birth expectations and early co-parental adjustment at 3 months postpartum. Development and Psychopathology, 16, 711–733.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, 56, 289–302.
- Notaro, P. C., & Volling, B. L. (1999). Parental responsiveness and infantparent attachment: A replication study with fathers and mothers. *Infant Behavior and Development*, 22, 345–352.
- Parke, R. D. (2002). Fathers and families. In M. Bornstein (Ed.), Handbook of parenting: Vol. 3. Being and becoming a parent (pp. 27–74). Hillsdale, NJ: Lawrence Erlbaum.
- Ramirez-Valles, J., Zimmerman, M. A., & Juarez, L. (2002). Gender differences of neighborhood and social control processes: A study of the timing of first-intercourse among low-achieving, urban, African American youth. *Youth & Society*, 33, 418–441.
- Ryan, R. R., Martin, A., & Brooks-Gunn, J. (2006). Is one good parent good enough? Patterns of mother and father parenting and child cognitive outcomes at 24 and 36 months. *Parenting: Science and Practice*, 6, 211–228.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Brown, G. L., & Sokolowski, M. S. (2006). Goodness-of-fit in family context: Infant temperament, marital quality, and early co-parenting behavior. *Infant Behavior & Development*, 30, 82–96.
- Schulz, M. S., Cowan, C. P., & Cowan, P. A. (2006). Promoting healthy beginnings: A randomized controlled trial of a preventive intervention to preserve marital quality during the transition to parenthood. *Journal* of Consulting and Clinical Psychology, 74, 20–31.
- Shapiro, A. F., & Gottman, J. M. (2005). Effects on marriage of a psychocommunicative-educational intervention with couples undergoing the transition to parenthood, evaluation at 1-year post intervention. *Journal of Family Communication*, 5, 1–24.
- Stoltz, H. E., Barber, B. K., & Olsen, J. A. (2005). Toward disentangling fathering and mothering: An assessment of relative importance. *Journal* of Marriage and Family, 67, 1076–1092.
- Tamis-LeMonda, C., Shannon, J. D., Cabrera, N., & Lamb, M. (2004).
 Fathers and mothers at play with their 2-year-olds: Contributions to language and cognitive development. *Child Development*, 75, 1806–1820.
- Tobler, N. S., & Stratton, H. H. (1997). Effectiveness of school-based drug prevention programs: A meta-analysis of the research. *Journal of Pri*mary Prevention, 18, 71–128.
- Van Egeren, L. A., & Hawkins, D. P. (2004). Coming to terms with coparenting: Implications of definition and measurement. *Journal of Adult Development*, 11, 165–178.